

Applicant: LENDLEIN *et al.*  
Serial No.: To be assigned  
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Preliminary Amendment  
June 30, 2005  
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**Amendments to the Claims:**

This listing will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (currently amended) **Photosensitive A** photosensitive polymeric network[[s]], comprising an amorphous network and a photoreactive component.
2. (currently amended) **Photosensitive A** photosensitive polymeric network in accordance with claim 1, wherein the amorphous network comprises a matrix component and a crosslinking component.
3. (currently amended) **Photosensitive A** photosensitive network in accordance with claim 2, wherein the photoreactive component is copolymerised with the amorphous network.
4. (currently amended) **Photosensitive A** photosensitive polymeric network in accordance with claim 2, wherein the photoreactive component is not copolymerised with the amorphous network.
5. (currently amended) **Photosensitive A** photosensitive polymeric network in accordance with claim 4, wherein the polymeric network comprises an amorphous network and a photoreactive component, physically admixed therewith.
6. (currently amended) **Photosensitive A** photosensitive polymeric network in accordance with ~~any one of the preceding claims~~ claim 2, wherein the matrix component is an acrylate material and/or a methacrylate material and wherein the crosslinking component is a diacrylate compound and/or a dimethacrylate compound.
7. (currently amended) **Photosensitive A** photosensitive polymeric network in accordance with ~~any one of the preceding claims~~ claim 1, wherein the

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photoreactive component is a component able to undergo a reversible photodimerization.

8. (currently amended) Photosensitive A photosensitive polymer network in accordance with ~~any one of the preceding claims~~ claim 1, wherein the photoreactive component is a cinnamic acid ester compound or a cinnamyl acid ester compound.

9. (currently amended) Photosensitive A photosensitive polymeric network in accordance with ~~any one of the preceding claims~~ claim 1, wherein the photoreactive ~~compound~~ component is ~~copolymerised~~ copolymerized with the amorphous network in the form of an acrylate compound or wherein the photoreactive component is physically admixed with the amorphous network in the form of a polymer or oligomer having at least three photoreactive groups.

10. (currently amended) Process A process for the preparation of a ~~preparing a~~ photosensitive polymeric network of claim 1 in accordance with ~~any of the preceding claims, wherein either, comprising~~

polymerizing a matrix component ~~is polymerised~~ with a crosslinking component and [[a]] the photoreactive component, or

polymerizing a matrix component ~~is polymerised~~ with a crosslinking component followed by admixing [[a]] the photoreactive component with the amorphous network.

11. (currently amended) Use of a photosensitive polymeric network in accordance with ~~any of the preceding claims as~~ A medicinal material[[, in particular]] for transportation of and for targeted release of drugs or diagnostic agents, comprising the photosensitive polymeric network of claim 1.

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12. (currently amended) Photoreactive A photoreactive component, comprising an oligomeric or polymeric scaffold with at least three terminals, wherein each terminal comprises a photoreactive group.
13. (currently amended) Photoreactive A photoreactive component according to claim 12, wherein ~~the~~ each photoreactive group is a group able to undergo a reversible photo dimerization.
14. (currently amended) Photoreactive A photoreactive component in accordance with claim 13, wherein ~~the~~ each photoreactive group is a cinnamic acid ester compound or a cinnamyl acid ester compound.
15. (currently amended) Photoreactive A photoreactive component in accordance with ~~any of~~ claim[[s 12 to 14]] 12, wherein the scaffold is a star shaped scaffold with three to [[6, preferable for]] six branches [[()]] or chain terminals[[()]].
16. (currently amended) Photoreactive A photoreactive component in accordance with claim 15, wherein the scaffold is a polyalkylene glycol scaffold[[, preferably]] or a polyethylene glycol scaffold.
17. (currently amended) ~~Use of a photoreactive component in accordance with any of claims 12 to 16 for the preparation of a~~ A polymeric photosensitive network comprising a photoreactive component of claim 12.
18. (currently amended) Process A process for programming a photosensitive polymeric network, comprising ~~the following steps:~~  
  
providing a sample of a photosensitive polymeric network comprising photoreactive groups, wherein the photoreactive groups are not present in photodimerized form[[,]];  
  
~~deformation of~~ deforming the sample[[,]];  
  
~~irradiation of~~ irradiating the sample with light having a wavelength initiating the photodimerization of the photoreactive [[component,]] groups; and,

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~~relaxation of relaxing~~ the sample.

19. (currently amended) ~~Method A process for programming a photosensitive polymeric network in accordance with according to~~ claim 18, wherein the photoreactive [[component]] groups are [[is a]] cinnamic acid ester compounds or [[a]] cinnamyl acid ester compounds.
20. (currently amended) ~~Method A method for programming a photosensitive polymeric network in accordance with according to~~ claim 18[[ to 19]], wherein the light is UV irradiation having a wavelength in the area of [[>]] greater than 250 nm.
21. (new) A process for preparing a medicinal material for transport and targeted release of drugs or diagnostic agents, wherein the medicinal material comprises a photosensitive polymeric network of claim 1, comprising the steps of:
  - polymerizing a matrix component with a crosslinking component and a photoreactive component, or
  - polymerizing a matrix component with a crosslinking component followed by admixing a photoreactive component with an amorphous network.